# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/686,539 | 10/11/2000 | Jeff Schulz | FORE-81 | 5750 |

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| 7590 | 07/19/2004 |

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| EXAMINER |
|---|
| NG, CHRISTINE Y |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2663 | |

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/686,539 | SCHULZ, JEFF |
| | Examiner | Art Unit |
| | Christine Ng | 2663 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on _07 May 2004_.
2a) ☐ This action is **FINAL**.    2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) _1-15_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1 and 9_ is/are rejected.
7) ☒ Claim(s) _2-8 and 10-15_ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _11 October 2000_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

1.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.     Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 5,878,039 to Gorshe et al in view of U.S. Patent No. 6,707,789 to

Arslan et al.

Gorshe et al disclose in Figure 1 a switch of a network for switching data

comprising a fabric (Elements 34, 36, 38, 40, 46 and 52) for switching the data and a

parity fabric (Elements 30 and 32).  The switch also contains a connection mechanism

(Element 9) connected to the fabric (Elements 34, 36, 38, 40, 46 and 52) for providing

data to and from the fabric (Elements 34, 36, 38, 40, 46 and 52) and connected to the

parity fabric (Elements 30 and 32) for providing parity data to and from the parity fabric

(Elements 30 and 32).  Refer to Column 3, lines 21-28.

The switch comprises a first port card (Element 10) which receives data from the

network.  "Bytes of data flowing into the interface unit are input immediately into the

input port data latches 30,32 which receive data through their respective input ports 10

and 12" (Column 7, lines 28-31).  The first port card (Element 10) performs first parity

calculations on the data received at the first port card (Element 10) and produces first

parity data from the first parity calculations.  The input port latch (Element 30) of the first

port card (Element 10) "contains a parity check circuit which provides indications at the Parity Error outputs that parity errors have occurred" (Column 7, lines 37-39). Refer to Column 7, lines 28-48. The first port card (Element 10) is connected to the connection mechanism (Element 9) to send data to the fabric (Element 34, 38 and 46) at the connection rate and to send the first parity data to the parity fabric (Element 30) at the connection rate. The input port accepts data at a first payload data rate and the output port outputs data at a second payload data rate. Refer to Column 6, lines 25-31. As shown in Figure 4, the input port receives data at 38.88 Mbps but can switch data rate to 19.44 Mbps as the data travels through the switch fabric.

The switch comprises a second port card (Element 12) which receives data from the network. "Bytes of data flowing into the interface unit are input immediately into the input port data latches 30,32 which receive data through their respective input ports 10 and 12" (Column 7, lines 28-31). The second port card (Element 12) performs second parity calculations on the data received at the second port card (Element 12) and produces second parity data from the second parity calculations. The input port latch (Element 32) of the second port card (Element 12) "contains a parity check circuit which provides indications at the Parity Error outputs that parity errors have occurred" (Column 7, lines 37-39). Refer to Column 7, lines 28-48. The second port card (Element 12) is connected to the connection mechanism (Element 9) to send data to the fabric (Elements 36, 40 and 52) at the connection rate and to send the second parity data to the parity fabric (Element 32) at the connection rate. The input port accepts data at a first payload data rate and the output port output data at a second payload

data rate. Refer to Column 6, lines 25-31. As shown in Figure 4, the input port receives

data at 38.88 Mbps but can switch data rate to 19.44 Mbps as the data travels through

the switch fabric. The second port card (Element 12) also separates the data into

streams of data that together equal the data received at the second port card that are

sent concurrently at the connection rate to the fabric (Elements 36, 40 and 52) and

combines the data streams received at the connection rate into data that is sent to the

network. The input port latch (Element 32) of the second input port (Element 12)

handles "20 bits of data in parallel as a 10-bit high byte and a 10-bit low byte" (Column

7, lines 34-35). Data is outputted to the corresponding output port (Element 16) as a 9-

bit high byte and a 9-bit low byte. Refer to Column 3, lines 16-21.

Gorshe et al do not disclose that the first input port card receives data at a first

rate and the second input port card receives data at a second rate.

Arslan et al disclose in Figure 1 a SONET switch (Element 100) coupled to line

interface units 104, 114 and 124. Each line interface unit 104, 114 and 124 has ports

that can handle different OC-N data rates. Refer to Column 1, lines 23-39. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was

made to include that the first input port card receives data at a first rate and the second

input port card receives data at a second rate; the motivation being so that the switch

can support different rates since different telecommunication systems require different

bit rates; thereby allowing the switch to accommodate more applications.

### *Allowable Subject Matter*

3.      Claims 2-8 and 10-15 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

### *Conclusion*

4.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christine Ng whose telephone number is (703) 305-

8395.  The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nguyen Chau can be reached on (703) 308-5340.  The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng  CN
July 13, 2004

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SUPERVISORY PATENT EXAMINER
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